ACC NR: AP7010710

in a nuclear reactor with slow neutrons and gamma rays. The experimental data show that irradiation of the catalyst results in significant increases in the yield of benzene. With repeated use of the catalyst, the benzene yield remained at a level corresponding to that of the unirradiated catalyst. Irradiation also appeared to affect the selectivity of the catalyst. The authors thank Ye. A. Timofeyev for providing the catalyst. Orig. art. has: 3 tables. /JPRS: 40,351/

Card 2/2

L 24297-66 EWT(m)/EWP(j) RM

ACC NR: AP6009800 SOURCE CODE: UR/0062/66/000/002/0348/0350

AUTHOR: Shuykin, N. I.; Voznesenskaya, I. I. 25 B

ORG: Institute of Organic Chemistry im. N. D. Zelinskiy, Academy of Sciences, SSSR (Institut organicheskoy khimii Akademii nauk SSSR)

TITLE: Conversion of dicyclohexyl and dicyclohexylmethane on Pt- and Pd-alumina catalysts under catalytic cracking conditions

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 2, 1966, 348-350

TOPIC TAGS: aromatic hydrocarbon, dehydrogenation, catalytic cracking, industrial catalyst

ABSTRACT: The conversion of dicyclohexyl (I) and dicyclohexylmethane (II) was investigated under catalytic cracking conditions--on 0.5% Pt/Al_2O_3 or 0.5% Pd/Al_2O_3 catalysts at 450°, 30 atm hydrogen pressure, space velocity of 0.3 hr^{-1}, H:C molar ratio = 5:1. The bicyclic molecules were dehydrogenated under these conditions. There was also rupture of the C-C bonds between the rings, and partial isomerization of the 6-membered ring to methylcyclopentane. 79-96% of I was dehydrogenated on the Pt catalyst to form diphenyl and phenylcyclohexane, 2

UDC: 542.97

Card 1/2

L 24297-66

ACC NR: AP6009800 O

but only 12-25% reacted on the Pd catalyst. Dehydrogenation of II to phenylcyclohexylmethane, diphenylmethane and fluorene was more difficult. Dehydrogenation was significantly less at atmospheric pressure. There was no dehydrogenation on alumina alone. Orig. art. has: 2 tables.

SUB CODE: 07/ SUBM DATE: 23Jun65/ ORIG REF: 004/ OTH REF: 004

Card 2/2 FV

L 45684-66 EWT(m)/EWP(j)/T WE/RM (A)
ACC NR: AP6020390 SOURCE CODE: UR/0204/66/006/001/0022/0026

AUTHOR: Shuykin, N. I.; Naryshkina, T. I.; Rashchupkina, Z. A.

ORG: Institute of Organic Chemistry im. N. D. Zelinskiy, AN SSSR (Institut organicheskoy khimii AN SSSR)

TITLE: Dehydrogenation of decalin and tetralin in the presence of activated charcoals

SOURCE: Neftekhimiya, v. 6, no. 1, 1966, 22-26

TOPIC TAGS: decalin, tetralin, dehydrogenation, activated carbon

ABSTRACT: The dehydrogenation of decalin and tetralin was studied in the presence of two unlike activated charcoals having different ash contents and different specific surfaces. Activated birchwood charcoal and bone char containing 0.48 and 74.01% ash and having specific surfaces of 550 and 37 m^2/g respectively were found to be very active in the dehydrogenation of decalin and tetralin into naphthalene. The yield of the latter at 550-600° reaches 95-100%. When decalin is in contact with ash-free sugar charcoal, only 2% naphthalene is formed. The dehydrogenation of the condensed alicyclic hydrocarbons studied into naphthalene occurs with a high selectivity under the influence of activated birchwood charcoal and bone char, whereas in the presence of ash-free charcoal secondary reactions take place which lead to the formation of a small amount of C_6-C_8 aromatic hydrocarbons. The presence of tetralin in the tetralin dehydrogenation products and also the presence of dihydronaphthalene in the tetralin

UDC: 547.659.1:542.941.8:661.183.2:66.094.187.3

Card 1/2

ACC NR: AP5022429 SOURCE CODE: UR/0109/65/010/009/1653/1659

L 8889-66 EEC(k)-2/EWA(h)/EWT(l)/T IJP(c)

AUTHOR: Naumov, Yu. Ye.; Shuykin, N. N. 44

ORG: none

TITLE: Investigation of dinistor turn-on transient 25,44

SOURCE: Radiotekhnika i elektronika, v. 10, no. 9, 1965, 1653-1659

TOPIC TAGS: dinistor, four region diode, npnp diode

ABSTRACT: A theoretical and experimental investigation of the turn-on process in a four-region diode (dinistor) is presented. As the turn-on time is determined by accumulation of an excess charge in the dinistor structure, a charge method is used in the theoretical analysis. Approximate formulas for delay and turn-on times are developed. The experimental verification was performed on two-transistor simulators (not on an actual 4-region structure); curves of the dinistor gain, delay, and turn-on time plotted against current are presented. It is found that the middle-junction capacitance tends to increase the dinistor turn-on time. Orig. art. has: 10 figures, 28 formulas, and 1 table.

SUB CODE: 09 / SUBM DATE: 16Jun64 / ORIG REF: 007 / OTH REF: 003

Card 1/1 udc

UDC: 621.382.233.001.5

L 8545-66 EEC(k)-2/EWT(d)/EWT(1)/T/EWA(h) IJP(c)

ACC NR: AP5022430 SOURCE CODE: UR/0109/65/010/009/1660/1662

AUTHOR: Naumov, Yu. Ye.; Shuykin, N. N.

ORG: none

TITLE: Problem of the inductive impedance of a dinistor

SOURCE: Radiotekhnika i elektronika, v. 10, no. 9, 1965, 1660-1662

TOPIC TAGS: dinistor, semiconductor diode

ABSTRACT: Connected with the work of J. Nishizava et al. (Solid State Circuits Confer., Phila., 1960), the nature of dinistor impedance is theoretically explored. By using well-known transient-process equations and the Laplace's transform, a formula for the dinistor impedance is developed. The dinistor impedance is found to be inductive not only within the negative-differential-resistance segment but also within a portion of the positive-differential-resistance segment of the dinistor I-V curve. The capacitance of the middle junction tends to decrease the dinistor inductance and the boundary frequencies of the negative-resistance segment. Orig. art. has: 1 figure and 15 formulas.

SUB CODE: 09 / SUBM DATE: 16Jun64 / ORIG REF: 004 / OTH REF: 002

jw

Card 1/1 UDC: 621.382.233.001.24

SHUYKINA, E.Ye.

Epidemiology and epizootology of cutaneous leishmaniasis of the rural type in the Karshi Oasis of the Uzbek S.S.R. Report No.2: Flagellata in the intestines of sandflies (Phlebotominae).

1. Iz epidemiologicheskogo i entomologicheskogo otdelov Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I. Martsinovskogo Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P.G. Sergiyev, zav. otdelom N.N. Dukhanina i prof. V.N. Beklemishev).
(KARSHI--DELHI BOIL) (MOTH FLIES)

MOSHKOVSKIY, Sh.D.; SHUYKINA, E.Ye.; DEMINA, N.A.; TIBURSKAYA, N.A.; VRUBLEVSKAYA, O.S.; ZHUKOVA, T.A.; ZABEZHANSKIY, V.I.; Prinimali uchastiye: BAGRAMYAN, M.G.; IL'YASOVA, S.I.

Methodology of the detection of asymptomatic carriers of quartan malaria. Med. paraz. i paraz. bol. 34 no.2:184-188 Mr-Ap '65. (MIRA 18:11)

1. Otdel protozoologii Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I. Martsinovskogo Ministerstva zdravookhraneniya SSSR, Moskva.

SHUYKINA, E. Ye.

Use of the indirect fluorescent antibody method in studying cutaneous leishmaniasis. Med. paraz. i paraz. bol. 34 no. 5: 576-582 S-O '65 (MIRA 19:1)

1. Institut meditsinskoy parazitologii i tropicheskoy meditsiny imeni Martsinovskogo Ministerstva zdravookhraneniya SSSR, Moskva. Submitted July 5, 1965.

SHUYKINA, E.Ye.

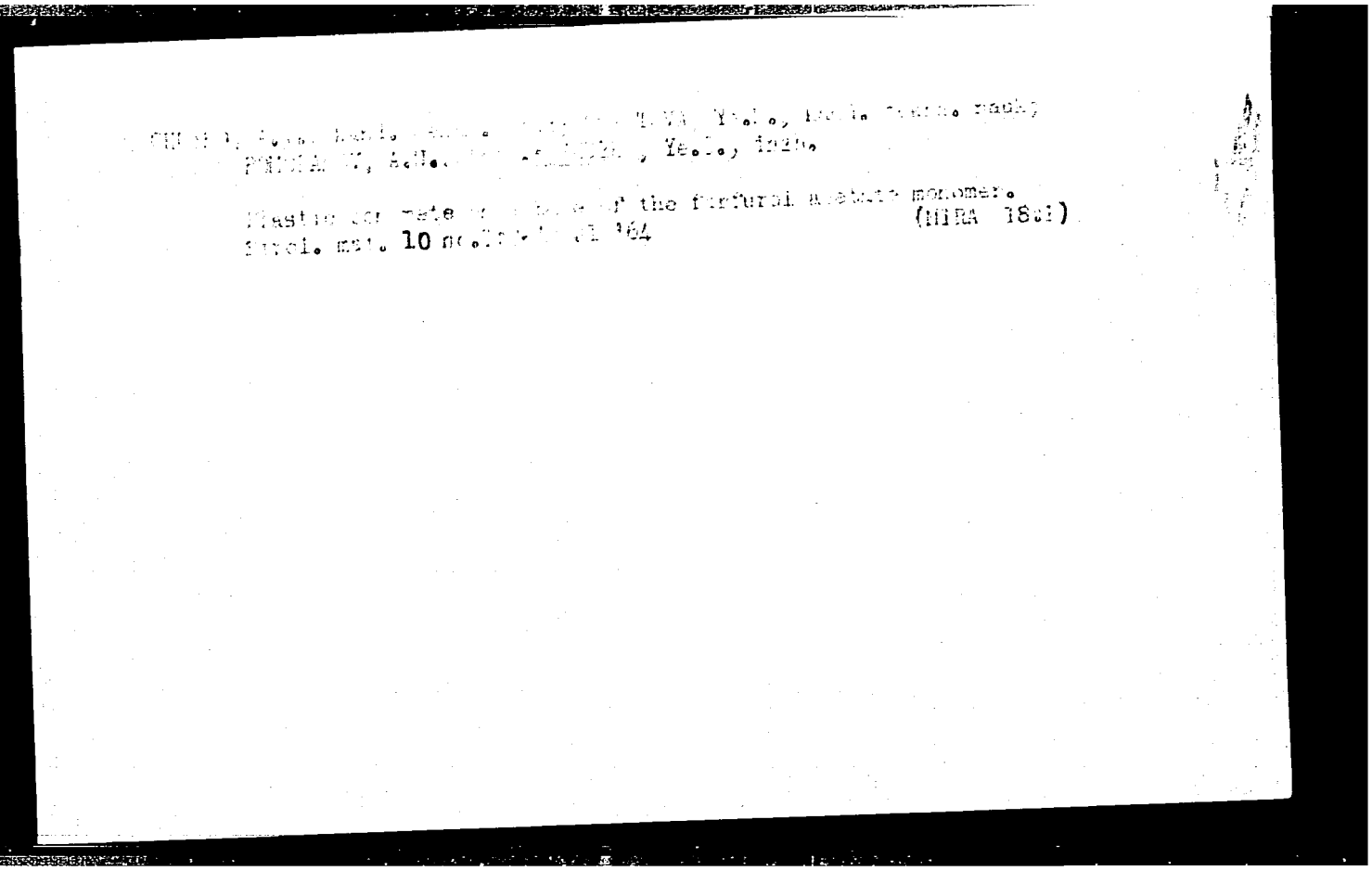
Study of Leishmania tropica strains isolated from gerbils in a focus of cutaneous leishmaniasis of the rural type and similar cultures of Flagellata isolated from sand flies. Med. paraz. i paraz. bol. 33 no.6:654-661 N-D '64.
(MIRA 18:6)

1. Protozoologicheskiy otdel Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Matrsinovskogo Ministerstva zdravookhraneniya SSSR, Moskva.

SHUYKINA, Ye.P., aspirant

Experience in the use of the vacuum extractor. Kaz.med.zhur. no.3:85-86 My-Je '62. (MIRA 15:9)

1. Akushersko-ginekologicheskaya klinika lechebnogo fakul'teta (zav. - prof. A.M.Foy) Saratovskogo meditsinskogo instituta.
(OBSTETRICS--EQUIPMENT AND SUPPLIES)



SHUYREV, F. A. Cand. Tech. Sci.

Dissertation: "Investigation of the Operation of Saw Chains in Motor-Driven Saws."

1 July 49

Moscow Forestry Engineering Inst.

SO Vecheryaya Moskva
Sum 71

L 25712-66 EWT(1) RO

ACC NR: AP6009974 (A) SOURCE CODE: UR/0017/65/000/012/0024/0024

AUTHOR: Shuvyrin, D. (Major general)

ORG: None

TITLE: Various security measures for civil defense

SOURCE: Voyennyye znaniya, no. 12, 1965, 24

TOPIC TAGS: civil defense, national security

ABSTRACT: A general review of various services providing security for civil defense activities is presented. The organization of services was divided, by the author, into eight specific groups: medical support, fire fighting, material supplies, technical support, engineer support, transportation, hydrometeorological service, antigas and antiradiation protection. The medical support included medical attendants, ambulance service, medical supply, preventive treatment, sanitation, quarantine, organization of propaganda, etc. The necessity of propaganda, preventive measures and population training was also stressed as well as fighting fires caused by explosions, especially of nuclear origin. The services of material supply and technical support are closely interconnected in supplying various kinds of drugs, fuels, materials, tools,

Card 1/2

L 25712-66
ACC NR: AP6009974

spare parts, safety wear and equipment, also in establishing supply echelons and liaison lines. The construction of shelters, conducting rescue works, restoration of power, gas and water supplies, repair of roads and other similar operations were assigned to the engineer support group. The transportation group deals with the evacuation of population (mostly by railroads), supply deliveries (mostly by motor vehicle) and other transport operations. The hydrometeorological service makes observations on the spreading of radioactive clouds and investigates the effects of chemical and radioactive agents. The antigas and antiradiation group is responsible for supplying the population with protective wear and equipment, for controlling contaminated areas and conducting decontaminating operations.

SUB CODE: 15 / SUBM DATE: None / ORIG REF: 000 / OTH REF: 000

Card 2/2

SHUYSKAYA, F.K.

SOME RESULTS OF THE SPECTROSCOPIC STUDY OF AURORAE AND AIRGLOW

by

F. K. Shuiskaia

ABSTRACT

Some results of the spectroscopical studies at Rostchino are reported. Auroral hydrogen Hg profile coincides with that obtained at the other two stations. Hydroxyl rotational temperature is equal to 265° ± 12° K in the zenith and 275° ± 12° K in the northern direction 2° above the horizon. Some results of treatment of auroral ultraviolet spectra are presented.

Spectral, Electrophotometric and Radar Research on Aurorae and Night Airglow, edited by V. I. Krasovskiy, Moscow, Izdatel'stvo Akad. Nauk SSSR, 1959.

22394

S/035/61/000/005/029/042
A001/A101

3,1810

AUTHOR: Shuyskaya, F.K.

TITLE: Some results of spectroscopic studies of auroras and night sky glow

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 5, 1961, 64, abstract 5A422 (V sb. "Spektr. elektrofotometr. i radiolokats. issled. polyarn siyaniy i svecheniya nochn. neba. no. 1", Moscow, AN SSSR, 1959, 45 - 47, Engl. summary)

TEXT: The author reports on spectroscopic observations carried out at the Roshchino station according to the IGY program with spectrographs СП-48 (SP-48) and СП-49 (SP-49). Five spectrograms with H_α emission were obtained during auroras of types HA, R, F, RP. One of the spectrograms was taken by sighting to the magnetic zenith, and the other to the magnetic horizon. The intensity of H_α in all cases does not exceed that of the neighboring bands $1PGN_2$. The investigation of the H_α profile in zenith has shown that displacement of maximum corresponds to velocity of 360 km/sec. Emission is traced to velocity of $\sim$600 km/sec to the violet side from the maximum. In the red region six spectrograms with OH emission were obtained by sighting northwards amd four by sighting to the magnetic zenith.

Card 1/2

69100

S/049/60/000/03/019/019
E032/E614

3.9100
AUTHOR: Shuyskaya, F.K.

TITLE: Auroral Spectra

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1960, Nr 3, pp 510-512 (USSR)

ABSTRACT: The present paper reports an attempt to determine latitude variations in the relative intensities of the vibrational 2PG N_2 bands in aurorae. The correction for the spectral sensitivity of the plates, atmospheric absorption etc. was carried out in two ways; the first of these was described by Seaton (Ref 5), and the second was based on the direct calculation of the correction coefficient K_λ using the Rayleigh coefficients reported by Petrie and Small (Ref 7) and the ozone absorption correction according to the data reported by Prokof'yeva (Ref 8). The results obtained are summarised in Tables 1, 2 and 3. These preliminary results indicate that the population of the upper vibrational levels of N_2 ($C^3\Pi_u$ state) in a typical high latitude aurora is greater than the population in low latitude aurorae. This is in agreement with the values of g(v') for

Card 1/2

S/035/61/000/003/041/048
A001/A101

3,1540

AUTHOR: Shuyskaya, F.K

TITLE: A spectrophotometric investigation of a bright prominence

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no 3, 1961, 55, abstract 3A463 ("Izv. Krymsk. astrofiz. observ.", 1960, v 22, 91-100, Engl. summary)

TEXT: An investigation of the profiles of several emission lines of one bright prominence warrants the following conclusions. The lines of metals, higher terms of the Balmer series, lines of hydrogen of the Paschen series, and lines of parahelium show Doppler broadening of the profiles. Self-absorption is observed in hydrogen lines of the Balmer series up to H_{10}, as well as in the Mg line λ5184 and Ti II λ3685. The reduced half-width of $\Delta\lambda/\lambda$ in orthohelium lines is larger than in parahelium lines, this is apparently explained by the fact that the joint profile of two central components was investigated in orthohelium lines. The helium lines D_3 and λ10,830 have anomalously large half-widths. The distribution of atoms over excitation levels is not the Boltzman one for hydrogen. For ortho-

Card 1/2

22514

S/035/61/000/003/041/048
A001/A101

A spectrophotometric investigation

helium and parahelium, distribution of atoms over excitation levels corresponds to Boltzmen distribution with excitation temperature 5,850°K. The following values were determined: T_{kin} = 6,150°K, v_t = 5.7 km/sec, $N_2 = 10^{14}-10^{15}$, $n_e = 10^{13}$. There are 9 references.

Author's summary

[Abstracter's note: Complete translation]

Card 2/2

78029
SOV/33-37-1-29/31

3.1810

AUTHOR: Shuyskaya, F. K.

TITLE: A Determination of the Balmer Decrement in the Aurora Spectrum

PERIODICAL: Astronomicheskiy zhurnal, 1960, Vol 37, Nr 1, pp 186-187 (USSR)

ABSTRACT: Using a home-made low dispersion spectrograph, the author succeeded in obtaining three auroral spectra showing the lines H_α, H_β, H_γ. Sensitivity of the emulsion and of the spectrograph was checked with a calibrated luminofore. The values of the observed decrement are found to be 3.0:1:0.8; these are compared with those obtained by G. I. Galperin and I. W. Chamberlain; the first of these agree with the values obtained here, but those of Chamberlain do not. This may possibly be explained by the decrease in the initial velocity of electrons. There are 1 table; and 2 U.S.

Card 1/2

S/169/61/000/012/084/089
D228/D305

3,1810 (1041)

AUTHOR: Shuyskaya, F. K.

TITLE: Determining the relative populations of oscillatory $INGN_2^+$ levels and the rotary temperature

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 12, 1961, 21, abstract 12G172 (V sb. Spektr., elektrofotometr. i radiolokats. issled. polyarnykh siyaniy i svecheniya nochn. neba. no. 5. M., AN SSSR, 1961, 49-52)

TEXT: Spectrograms of auroras obtained by means of СП-48 (SP-48) and СП-49 (SP-49) spectrographs during the IGY were studied. The work was carried out at three stations: Murmansk, Roshchino, and Zvenigorod. The intensity of the oscillatory band is expressed by the formula:

Card 1/3

S/169/61/000/012/084/089
D228/D305

Determining the relative...

$$J(v', v'') = \frac{g(v') \cdot p(v', v'') n^4 (v' \ldots v'')}{\sum p(v', v'') \ldots^3 (v' \ldots v')}$$

where $g(v')$ is the relative population of the oscillatory level of the upper electron state and $p(v', v'')$ is the relative probability of transition. Hence, the relative population of the oscillatory level at known values of $p(v', v'')$ may be determined. The magnitudes of $g(v')$ were determined from one of the sequences ... $v = 0, 1$ or 2. The relative band intensities in each of the sequences were corrected for the spectral sensitivity of the apparatus. The change in the coefficient of atmospheric transparency in the spectral region of each sequence may be disregarded. No superimposition of the bands on each other in the sequence was observed in most of the cases under consideration. Conversion factors were calculated for the transition from the relative populations of bands to the relative populations of

Card 2/3

Determining the relative...

oscillatory levels. The values of the populations of the oscillatory $INGN_2^+$ levels are tabulated. The relative population of oscillatory levels at low latitudes is above or equal to the population at high latitudes. The resulting data allowed certain estimates to be made for the rotary temperature of the $INGN_2^+$ bands. The rotary lines of the R-branch of the $(0.C_1)$ and (0.1) bands were not resolved in auroras of the usual type. The value of the rotary temperature was determined from the maximum of the R-branch of the $(0.C_1)$ band. For $\Phi = 63.6^0$ (Murmansk), the value of T_R was found to be equal to 230^0K with an error of $\pm 70^0K$. Several rotary lines in the wing of the R-branch of the (0.1) band were successfully identified from the spectrum obtained at the latitude $\Phi = 51^0$. The value of T_R was thereby found to equal 1800^0K. [Abstracter's note: Complete translation]

Card 3/3

ACCESSION NR: AT4034381 S/2662/63/000/010/0044/0053

AUTHOR: Shuyskaya, F. K.

TITLE: An attempt to detect natural emissions in the atmosphere during the solar eclipse of February 15, 1961

SOURCE: AN SSSR. Mezhduvedomstvenny*y geofizicheskiy komitet. IV razdel programmy* MGG: Polyarny*ye siyaniya i svecheniye nochnogo neba. Sbornik statey, no. 10, 1963, 44-53

TOPIC TAGS: meteorology, geophysics, aurora, atmospheric emission, solar eclipse, crepuscular emission, spectroscopy

ABSTRACT: The author notes that the great brilliance of scattered sunlight makes daytime observations of the natural glow of the upper layers of the atmosphere extremely difficult. In fact, such observations are possible only by means of very specialized equipment. This problem is greatly facilitated during total solar eclipses, when the scattered light of the Sun is weakened considerably. At such times, observations may be conducted from points on the Earth's surface (or from aircraft), using the equipment normally employed for the study of the nightglow or crepuscular glow of the atmosphere (spectrographs, photometers, etc.).

Card 1/5

ACCESSION NR: AT4034381

This article presents the results of spectrographic observations of the natural radiation of the atmosphere during the eclipse of February 15, 1961. The observations were conducted in the vicinity of Rostov ($\varphi = 47^{\circ}$, $\lambda = 39^{\circ}$) at a height of 10 km. The full phase of the eclipse began at 11 h 15 m 45 s Moscow time and lasted approximately 3 minutes 50 seconds. At the observation point the height of the Sun was approximately 27°36'. Observations were made at an azimuth opposite to the solar at an angle of 23° to the horizon. Figure 1 in the Enclosure shows the ellipse of the full phase of the eclipse (intersection of the cone of the lunar shadow and the surface of the Earth) and the position of the aircraft on the ellipse at different moments of time from the 2nd to the 3rd contacts of the eclipse. The sighting ray of the instruments left the band of the complete shadow at a height of 30 - 40 km during a 3-minute exposure and at a height of 20 - 30 km with a 30-second exposure. During the time of the observation, there was a continuous cloud bank beneath the aircraft at a height of 7,000 meters. Threshold sensitivity of the equipment was on the order of 2 kilorayleighs at 6300 A and the sodium D-line (3-minute exposure) was approximately 1.5 kilorayleighs and 500 rayleighs per angstrom, respectively, at 3914 and 4278 A (30-second exposure). Because of the very heavy background of scattered sunlight, all the spectra obtained with the SP-47 spectrograph were overexposed and unsuitable

Card 2/5

ACCESSION NR: AT4034381

for further processing, as well as the spectrum with the 3-minute exposure in the 3850-4600 A region obtained on the SP-48 spectrograph. A study of the spectrograms led to the detection, against the background of intensive scattered sunlight, of two weak emission lines in the spectral regions of 6300 and 4368 A. These lines were identical with the hydrogen lines at 6300 and 4386 A. The author has considered the measured intensities and has attempted, on the basis of these values, to determine the correct values for the given emissions under non-eclipse conditions. For dayglow an emission intensity on the order of 1 kilorayleigh was discovered for helium at 10,830 A. For extra-eclipse conditions, the value of I 6300 is approximately 45 rayleighs. For the conditions of the eclipse in question, the factor g (radiation capacity of an illuminated O1 atom) required 9-fold reduction and, consequently, I 6300 is approximately 5 rayleighs. Thus, the contribution to the overall intensity from the red hydrogen line due to excitation by resonance fluorescence during the eclipse is negligible. For 6300 A by day in the atmosphere, an emission intensity of 30 kilorayleighs as determined on the basis of experimental data obtained during the eclipse and in the light of the assumptions regarding the deactivation factor, atomic and molecular hydrogen concentration and dissociative recombination mechanism. "I wish to express my gratitude to O. L. Baysberg, Yu. I. Gal'perin, L. V. Mironova and N. N. Shefov for

Card 3/5

ACCESSION NR: AT4034381

their participation in the observations." Orig. art. has: 3 figures, 4 tables and 8 formulas.

ASSOCIATION: Mezhduvedomstvenny*y geofizicheskiy komitet, AN SSSR (Interdepartmental Geophysical Committee, AN SSSR)

SUBMITTED: 00	DATE ACQ: 13May64	ENCL: 01
SUB CODE: ES, AA	NO REF SOV: 005	OTHER: 020

Card 4/5

ACCESSION NR: AT4034381

ENCLOSURE: 01

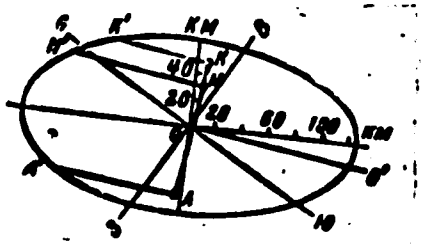


Fig. 1. Ellipse of intersection of the lunar shadow by the Earth's surface: ANK - path of the aircraft during the full phase (path AM corresponds to a 3-min exposure, MK - to a 30-sec exposure); 00' - direction to Sun. The observation is carried out in the direction AA', MM', KK'.

Card 3/3

L 1547-66 FSS-2/EWT(1)/FS(v)-3 TT/GS/GW

ACCESSION NR: AT5023583 UR/0000/65/000/000/0203/0205

AUTHOR: Vaysberg, O. L.; Shuyskaya, F. K.

TITLE: Anomaly in the pitch distribution of electrons

SOURCE: Vsesoyuznaya konferentsiya po fizike kosmicheskogo prostranstva. Moscow, 1965. Issledovaniya kosmicheskogo prostranstva (Space research); trudy konferentsii. Moscow, Izd-vo Nauka, 1965, 203-205

TOPIC TAGS: electron distribution, atmospheric interaction, upper atmosphere, space flight, space probe

ABSTRACT: Pitch distributions of electrons were obtained by means of charged-particle indicators installed on board the Kosmos-5 satellite. Wide pitch distributions were observed in the range of longitudes to the west of the South Atlantic anomaly. Narrowing of pitch distributions occurred at $\lambda \approx 0°$ up to $\lambda \approx 20°$, with greatest narrowing in the range of longitudes from +20 to +60°. The narrowing of the pitch distributions occurred at the exit from the anomaly, and the corresponding decrease in intensities observed in this region took place at heights >600 km, which makes it impossible to explain the effect only by scattering in the atmosphere. The effect was attributed at least partially to the presence of electric fields in the mag-

Card 1/2

L 1547-66

ACCESSION NR: AT5023583

netosphere. Electromotive forces due to high conductivity along the geomagnetic force lines should penetrate the region of capture and distort the drift of particles of not very high energy. The systematic change of the width of pitch distribution of electrons with an energy of ~100 kev could be caused by an electric field with an intensity of the order of 10^{-5} v·cm^{-1}. A change in the energy of these electrons would also occur. Orig. art. has: 2 figures and 1 table. [JA]

ASSOCIATION: none

SUBMITTED: 02Sep65 ENCL: 00 SUB CODE: ES, NP

NO REF SOV: 004 OTHER: 007 ATD PRESS: 4094

[redacted]

Card 2/2

L 3107-66 FSS-2/EWT(l)/FS(v)-3/FCC/EWA(d)/EWA(h) TT/GS/GW
ACCESSION NR: AT5023611 UR/0000/65/000/000/0406/0417

AUTHOR: Bolyunova, A. D.; Vaysberg, O. L.; Gal'perin, Yu. I.; Potapov, B. P.; Temnyy, V. V.; Shuyskaya, F. K.

TITLE: Preliminary results of particle studies using the "Elektron-1" satellite

SOURCE: Vsesoyuznaya konferentsiya po fizike kosmicheskogo prostranstva. Moscow, 1965. Issledovaniya kosmicheskogo prostranstva (Space research); trudy konferentsii. Moscow, Izd-vo Nauka, 1965, 406-417

TOPIC TAGS: particle physics, artificial earth satellite, satellite data analysis, electron, proton

ABSTRACT: The authors analyze data from the "Elektron-1" to determine the distribution of radiation in the geomagnetic trap along the orbit of the satellite in January-March 1964. At lower latitudes ($L < 2$) close to the equator, the dominating particle flux is from electrons of natural origin with energies of 20-200 kev and an intensity of up to $2 \cdot 10^9$ particles$\cdot$cm$^{-2}\cdot$sec^{-1}, and from electrons artificially injected by the high-altitude explosion of 9 July 1962 with energies of several Mev and a flux of up to $2 \cdot 10^8$ particles$\cdot$cm$^{-2}\cdot$sec^{-1}. There are also trapped protons in

Card 1/2

L 3107-66

ACCESSION NR: AT5023611

this same region with energies of tens and hundreds of Mev and an intensity of up to $\sim 5 \cdot 10^4$ particles$\cdot$cm$^{-2}\cdot$sec^{-1} ($E > 50$ Mev). At middle latitudes ($2 < L < 4$) there is a sharp increase in the flux of soft protons with energies of a few hundred kev to intensities of no less than $\sim 10^8$ particles$\cdot$cm$^{-2}\cdot$sec^{-1} at latitudes of 30-50° and apparently to no less than $\sim 3 \cdot 10^8$ close to the plane of the equator at $L \sim 3$. Their spectrum is softer at higher latitudes. Both protons and electrons are observed at higher latitudes, the low energy electron component ($E > 20$ kev) being extremely variable, especially during increased geomagnetic activity. The boundary of the capture zone in the geomagnetic field during magnetic calm matches the outlines of the "momentary" polar aurora zone which reflects the diurnal asymmetry of the magnetosphere. "In conclusion, we are sincerely grateful to V. I. Krasovskiy, T. M. Mulyarchik, N. V. Dzhordzhio, M. L. Bragin, G. M. Zlotin, I. M. Kikpadze, I. D. Dmitriyeva, T. N. Zaglyadimova, A. K. Nazarova and G. A. Bordovskiy for great assistance in the work and for useful discussions." Orig. art. has: 8 figures and 1 table. [14]

ASSOCIATION: none

SUBMITTED: 02Sep65 ENCL: 00 SUB CODE: ES, NP

NO REF SOV: 009 OTHER: 008 ATD PRESS: 4105

Card 2/2

L 8118-66 FSS-2/EWT(1)/FS(v)-3/FCC/EWA(d)/EWA(h) TT/GW

ACC NR: AP6000306 SOURCE CODE: UR/0293/65/003/006/0890/0902

AUTHOR: Vaysberg, O. L.; Shuyskaya, F. K.

16
B

ORG: none

TITLE: Distribution of electrons with E > 40 kev by pitch angles in the inner belt, based on data of "Cosmos-5"

12

SOURCE: Kosmicheskiye issledovaniya, v. 3, no. 6, 1965, 890-902

TOPIC TAGS: satellite data analysis, satellite orientation, radiation belt, satellite stability, electron distribution, electron energy level

12

ABSTRACT: In June 1962 observers succeeded in obtaining data over several critical revolutions of "Cosmos 5" on the distribution of directed intensity of electrons with energy > 40 kev by pitch angles at altitudes of 1,000—1,600 km. Distributions were plotted of the directed intensity in mirror points on natural geomagnetic coordinates B and L while preserving the magnetic moment. The width of pitch distributions and the corresponding B and L diagrams show the dependence on longitude (or on the local time of the observation point). On the average, the directed intensities computed by pitch distributions are in agreement with the measurements of intensities at an angle of 90° to the force line, which were made during other orbitings through the same drift envelope at longitudes close together. In Pacific longitudes, the directed intensity

Card 1/2 UDC: 550.388

2

L 8118-66

ACC NR: AP6000306

on the drift trajectories running in the region of the South-Atlantic anomaly at an altitude of 250 km reaches $2 \cdot 10^6$ electron/cm^2·sec·strad for L = 1.5. The width of the pitch distribution remains large in the zone of the South-Atlantic anomaly and thereafter. At longitudes > 0° during the daytime the pitch distributions contract, and the intensity along the drift trajectories decreases correspondingly. This phenomenon, evidently, cannot be entirely the result of Coulomb scattering. The variations observed in pitch distributions and intensities, their changes in individual orbiting revolutions, and the systematic decrease of pitch distributions and intensity at longitudes > 0° are a weighty argument in support of the existence in the magnetosphere of electric fields of ionospheric origin with a strength of up to 10^{-4}—10^{-5} v/cm. At present, additional analysis of the available material is being conducted in order to evaluate the effect of diurnal and longitudinal factors on the pitch distribution of trapped particles. There are reasons to assume that the measurement of the variations of intensity and pitch angles of soft electrons, which play an important role in the excitation of auroras and in the energy balance of the upper atmosphere, may serve also as an effective means for the study of electric fields and circulation in the upper atmosphere and magnetosphere of the Earth. Orig. art. has: 5 formulas and 9 figures. [JJ]

SUB CODE: AA, SV/ SUBM DATE: 27Feb65/ ORIG REF: 008/ OTH REF: 013/ ATD PRESS: 4145

Card 2/2

L 26649-66 EWT(m)/EWP(t) IJP(c) JD

ACC NR: AP6007183 SOURCE CODE: UR/0170/66/010/002/0176/0181

AUTHORS: Timrot, D. L.; Shuyskaya, K. F. 23 B

ORG: Thermo-Technical Institute im. F. E. Dzerzhinskiy, Moscow (Teplotekhnicheskiy institut)

TITLE: Influence of additives to CO_2 on its critical phenomena

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 10, no. 2, 1966, 176-181

TOPIC TAGS: carbon dioxide, critical point, gas density

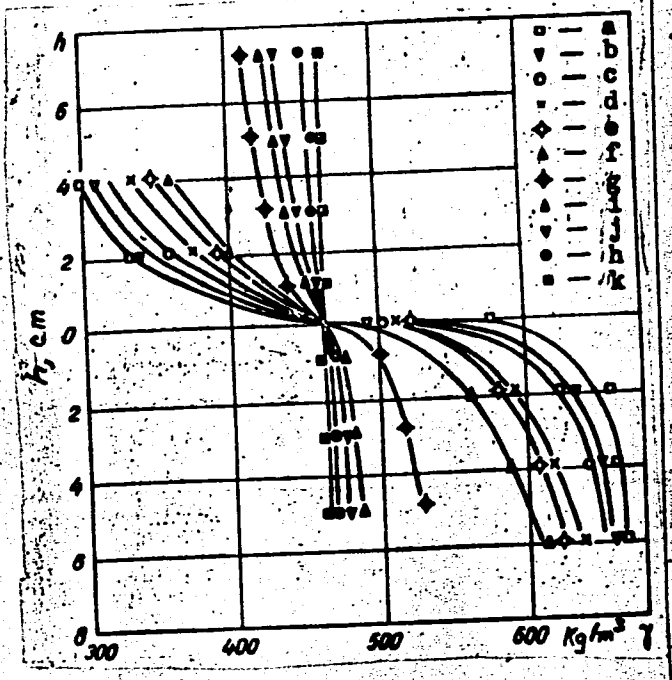
ABSTRACT: The effect of adding air to carbon dioxide on the critical properties of carbon dioxide was studied. The density distribution of carbon dioxide at the critical point was investigated as a function of the concentration of additives and of the distance along the height of the experimental vessel. The work supplements the results of I. V. Zavalin and Yu. I. Shimanskiy (Ukrainskiy fizicheskiy zhurnal, IX, No. 10, 1964). A schematic of the experimental installation is presented, and the experimental results are shown graphically (see Fig. 1). It was found that the density distribution depends primarily on the concentration of admixtures.

Card 1/2 UDC: 532.5

L 26649-66

ACC NR: AP6007183

Fig. 1. Graph for the change in density (γ) of carbon dioxide along the height (h) of the experimental vessel. a,b,c,d,e,f - at temperatures of 30.11, 30.88, 31.58, 32.16, 32.84, and 33.30C respectively, and at 3.46% of air; g,i,j,h,k - at temperatures of 31.57, 32.61, 33.01, 35.19, and 38.10C respectively, and at 0.12% of air.



Orig. art. has: 4 graphs.
SUB CODE: 20,07/ SUBM DATE: 14May65/ ORIG REF: 003/ OTH REF: 003
Card 2/2

L 35912-66 EWT(m)/EWP(j) RM

ACC NR: AP6014893 SOURCE CODE: UR/0076/65/039/012/2951/2957

AUTHOR: Nurmukhametov, R. N.; Chepigo, O. S.; Shvayka, O. P.

ORG: Moscow Physico-chemico Scientific Research Institute im. L. Ya. Karpov (Moskovskiy nauchno-issledovatel'skiy fiziko-khimicheskiy institut)

TITLE: The structural luminescence and absorption spectra of solutions of aryloxydiazoles and some aryl ethylenes at 77°K

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 12, 1965, 2951-2957

TOPIC TAGS: absorption spectrum, luminescence spectrum, ethylene

ABSTRACT: The spectra were taken by the Shpol'skiy method in n-hydrocarbons and methyl cylohexane at 77°K on a Hilger spectrometer. The average concentration of the solutions was approximately 10^{-4} moles/liter. The spectra obtained are exhibited in a number of figures. It was established that a majority of the compounds studied exhibited only fluorescence, while phosphorescence was absent. The structure of the spectra has a periodic form. The article interprets other vibrational frequences by analogy with known interpretations of the spectra of aryl ethylenes. In compounds with the general structure

Card 1/2 UDC: 543.42

L 35912-66

ACC NR: AP6014893

R_1--X--R_2 (where R_1 and R_2 are aryl nuclei and the X group is either ethylene or oxydiazole) there is observed an identical nature of the π- bond, which presupposes an identical mechanism for the formation of the vibrationsl structure of the bands of these compounds. Orig. art. has: 2 figures and 2 tables.

SUB CODE: 07, 20/ SUBM DATE: 01Aug64/ ORIG REF: 011/ OTH REF: 003

Card 2/2

GERONT'YEVA, I.Ye.; KARAVAYEVA, M.V.; SHUYSKAYA, R.I.

Investigating the shape of grains of grinding and polishing powders. Sbor.st.LITMO no.47:104-109 '59. (MIRA 16:10)

SHUYSKAYA, Z.S.

Comparative evaluation of the treatment of scrofulus keratitis with intramuscular injection of fish oil, calcium chloride and by Ponndorf's tuberculin method. Vest.oft. 30 no.1:39-40 Jan-Feb 51.
(CLML 20:6)

1. Of the Eye Clinic (Director--Prof.P.Ye.Tikhomirov), Leningrad Medical Institute.

SHUYSKIY, L.

Thermometers and Thermometry

"Termistors." Tekh. molod. 20 no. 4, 1952

Monthly List of Russian Accessions, Library of Congress, July 1952. UNCLASSIFIED

SHUYSKIY, L., inzhener.

Electric power booster. Tekh.molod. 21 no.7:7-10 Jl '53. (MLRA 6:8)
(Boosters, Electric)

SHUYSKIY, L., inzhener.

The condenser works. Tekh.mol. 22 no.8:28-29 Ag '54. (MLRA 7:8)
(Condensers (Electricity))

CARD/1/1 : [illegible] - Semiconductor Devices and Microelements

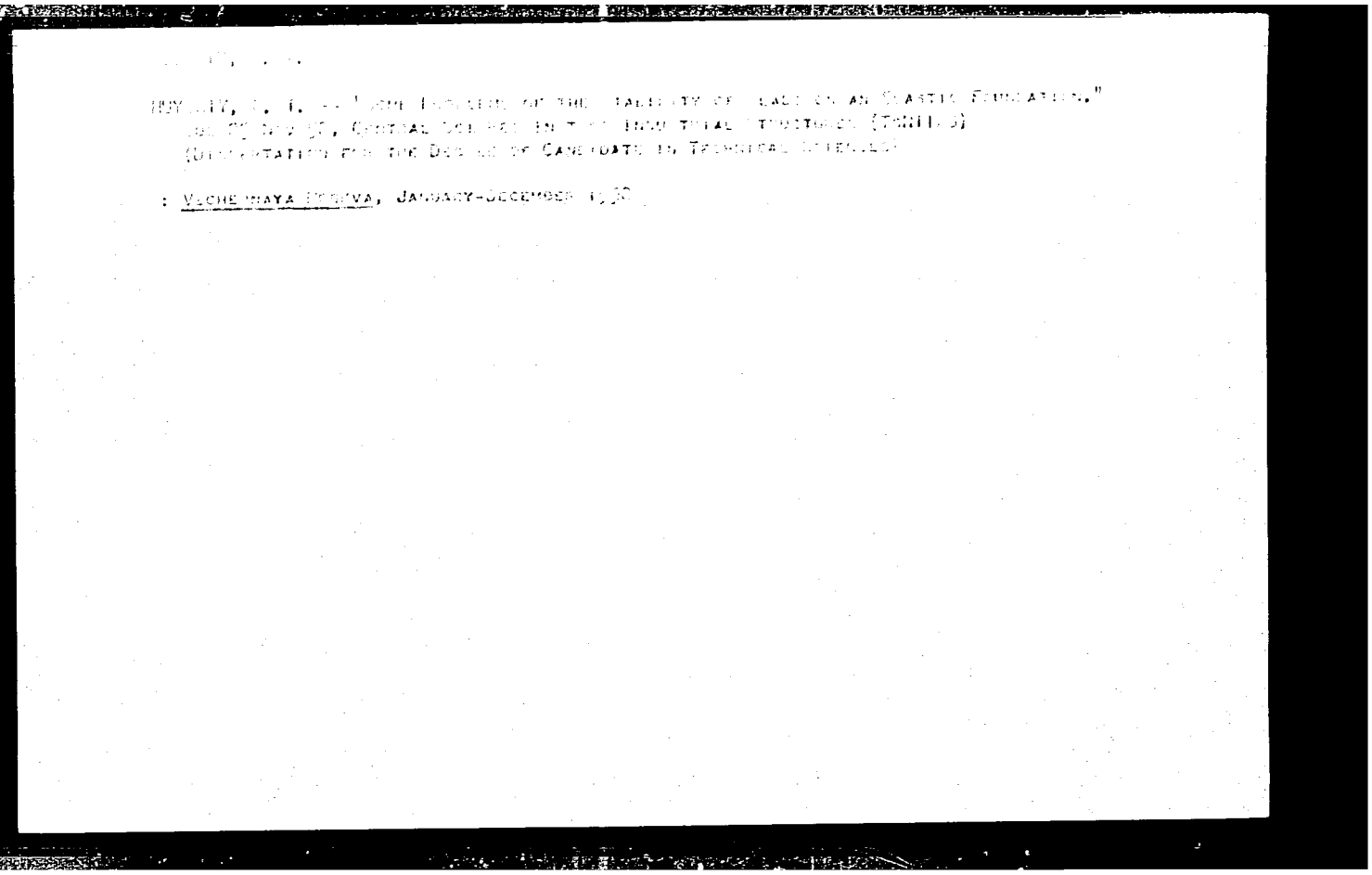
Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4308

Author : Shchigal', F. A., Madoyan, S. G, Petrov, L. A., Gol'denberg, V. A., Lazareva, G. V., Stepanenko, I. P., Shuyskiy, L. I.

TITLE : Germanium Diodes and Transistors and their Application

Orig Pub : Radiotekhn. proiz-vo. Sb. I. M., 1956, 3-25

Abstract : Popular article



: Vechernaya Moskva, January-December 1950

Shuyskiy, P.I

NEYEVIN, Ye.A.; ROTSHTEYN, A.G.; SHUYSKIY, P.I.

[Work practice of brigades organized on a commercial basis at construction sites of the metallurgical industry] Opyt raboty khozraschetnykh brigad na stroikakh metallurgicheskoi promyshlennosti. Moskva, Gos. izd.lit. po stroitel'stvu i arkhitekture, 1953. 104 p. (MLRA 7:11D)

MIKHAYLOV, Viktor Grigor'yevich, kand. tekhn. nauk; SHUYSKIY, Petr Ivanovich, kand. tekhn. nauk; NESOV, V.D., inzh., red.; KUZNETSOVA, A.A., red. izd-va; ABRAMOVA, V., tekhn. red.

[Economics of manufacturing and using prestressed-concrete beams and girders; for roofs of industrial buildings] Ekonomika proizvodstva i primeneniia zhelezobetonnykh predvaritel'no napriazhennykh balok i ferm; dlia pokrytii proizvodstvennykh zdanii. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 108 p. (MIRA 14:10)
(Beams and girders) (Industrial buildings)

SHUYSKIY, V., prof.; BERGER, A.Ya., prof.; SOROKER, T.G., doktor tekhn.nauk, prof.; KUZNETSOV, B.I., inzh.

Phase number of a short-circuited rotor. Elektrotekhnika 34 no.12:74 D '63. (MIRA 17:1)

MUKHINA, V.P.; KONEV, P.N., SHNEYDER, B.A.; SHUYSKIY, V.P.

Basic characteristics of the paleogeography of the Urals in the Eifelian stage. Dokl. AN SSSR 164 no.3:644-647 S '65.
(MIRA 18:9)

1. Ural'skoye geologicheskoye upravleniye. Submitted December 21, 1964.

SHUYSKIY, Yu.D.

Some forms of relief in the sandy shore zone near the waterline of the northwestern part of the Black Sea. Izv. Vses. Geog. ob-va 97 no.5:456-460 S-O '65. (MIRA 18:11)

YAKOVLEVA, Ye.N., kand.ekonom.nauk, nauchnyy sotrudnik; FARBEROVA, E.N., nauchnyy sotrudnik; GRUZINOV, V.P., nauchnyy sotrudnik; ROGOVOY, L.Z., nauchnyy sotrudnik; SHUYTTE, G.G., nauchnyy sotrudnik; GORFAN, K.L., nauchnyy sotrudnik; SKREZHKIN, A.S., nauchnyy sotrudnik; LYADOV, P.F., nauchnyy sotrudnik; SAVOST'YANOV, V.V., nauchnyy sotrudnik; FILIPPOVA, V.V., nauchnyy sotrudnik; KHOLIN, I.A., red.; PONOMAREVA, A.A., tekhn.red.

[Statistical manual on problems of labor and wages in the socialist countries of Europe] Statisticheskii sbornik po voprosam truda i zarabotnoi platy v evropeiskikh sotsialisticheskikh stranakh. Moskva, Gosplanizdat, 1959. 198 p. (MIRA 12:9)

1. Moscow. Nauchno-issledovatel'skiy institut truda. 2. Otdel stran narodnoy demokratii Nauchno-issledovatel'skogo instituta truda (for all except Kholin, Ponomareva).
(Europe, Eastern--Labor and laboring classes--Statistics)

SHUZAM, E. A.

1. Shuzam, E. A., Umanskii, M. M. and Zhdanov, G. S., The crystal structure of di-nitro-naphtalenes. IV. Determination of the crystal structure of 2, 6 -dinitronaphtalene. p. 3.

For organic structures in which the molecule is the elementary particle of the structure of the crystal, the determination of the structure consists of the following 3 stages:

1. The determination of the size, form and type of the unit cell, the space group of symmetry, the number of molecules in the space of the unit cell.

2. The determination of the position of the centers of the molecules and the orientation of the moleculds in the space of the unit cell.

3. The determination of the structure of the molecule itself. The molecule of 2, 6 -dinitronaphtalene has a center of symmetry; a small number of molecules in the nucleus (z = 2).

The Karpov
Physico-chemical Institute
Roentgen Lab.
Moscow
April 21, 1948

SO: Journal of Physical Chemistry (USSR) 23, No. 1 (1949)

Shuzovatova, A. P.

/8071* Carburizing Middle-Alloy Carbon Steel. K voprosu [illegible]. (Russian.) E. M. Morozova and A. P. Shuzovatova. Stanki i Instrument, v. 27, no. 3, Mar. 1956, p. 20-29. MG (2)

Strength of carburized parts in relation to C content of steel, depth of carburized layer, strength of core, and other factors. Hardness in relation to depth of carburized layer. Recommendations of specific steels. Graphs, tables. 2 ref.

-9/

BALASHOV, A.A.; LOSSIYEVSKIY, V.L.; CHERNYSHEV, V.N.; SHVAB, A.F.; SHELEMIN, B.V.; ANDREYENKO, Z.D., red.; POPOVA, S.M., tekhn. red.

[Flow sheets and means of automation of radiochemical industries; automation of radiochemical extraction processes] Skhemy i sredstva avtomatizatsii radiokhimicheskikh proizvodstv; k voprosu ob avtomatizatsii radiokhimicheskikh ekstraktsionnykh protsessov. Moskva, Gosatomizdat, 1963. 186 p. (MIRA 17:2)

SHVAB, L.A.

A case of congenital anomaly of the aorta; congenital aneurysm and coarctation of the aorta. Vest. rent. i rad. no.6:85-87 N-D '55 (MLRA 9:4)

1. Iz rentgenovskogo otdeleniya (zav.L.A. Shvab) 2-i klinicheskoi bol'nitsy Saratova (glavnyy vrach M.V. Yermakov)

(AORTIC ANEURYSM, compl.
coarctation of aorta)
(COARCTATION OF AORTA, etiol. and pathogen.
aortic aneurysm)

SHVAB, L.A., kand.med.nauk

Pulmonary agensia in an adult. Vrach.delo no.10: 1085-1087 O'58
(MIRA 11:11)

1. Rentgenologicheskoye otdeleniye (zav. - L.A. Shvab) Vtoroy klinicheskoy bol'nitsy Saratova.
(LUNGS --ABNORMITIES AND DEFORMITIES)

SHVAB, L.A., kand. med. nauk

Role of the X-ray examination in the diagnosis of acute pneumonia in children under one year of age. Vest. rent. i rad. 38 no.5:13-18 S-O'63 (MIRA 16:12)

1. Iz kafedry rentgenologii i radiologii (zav. - dotsent D.K. Zavadovskiy) Tomskogo meditsinskogo instituta.

ZOSIMOVICH, D.P.; SHVAB, N.A.

Remelting high-purity cathode zinc. TSvet. met. 34 no.6:27-32 Je '61. (MIRA 14:6)
(Zinc--Electrometallurgy)

ZOSIMOVICH, D.P., kand.khim.nauk; SHVAB, N.A.; BELINSKIY, V.N.

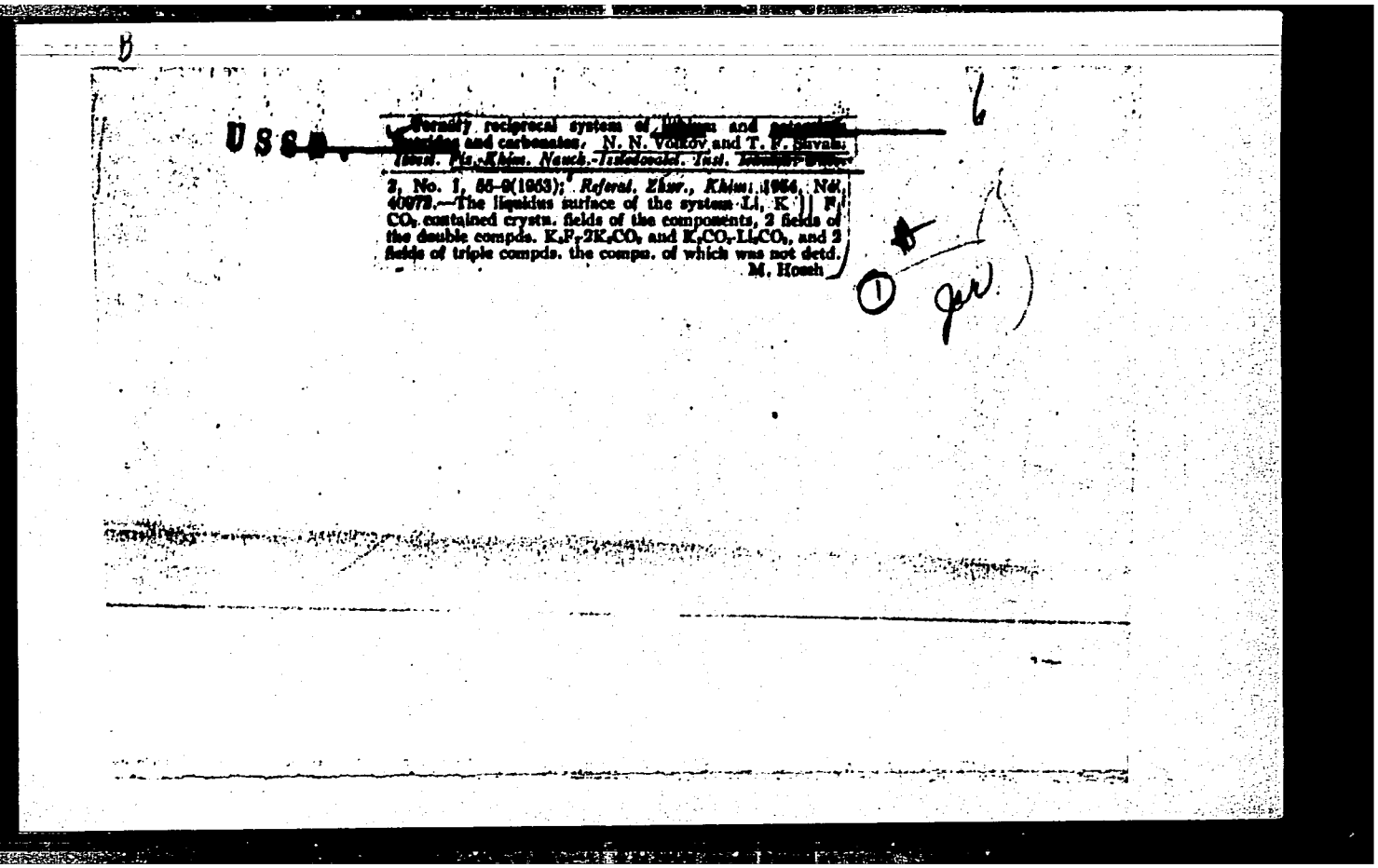
Electromechanical preparation of pure manganese by the refining of high-phospnorus manganese alloys. Me. i gornorud. prom. no.3:35-36 My-Je '63. (MIRA 17:1)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

ZOSIMOVICH, D.P.; SHVAB, N.A.; ANDREYCHENKO, V.G.

Conditions for the removal of impurities form manganese electrolytes. Ukr. khim. zhur. 31 no.10:1104-1107 '65. (MIRA 19:1)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR. Submitted May 7, 1964.



B

USS

Ternary reciprocal system of [illegible] and potassium fluorides and carbonates. N. N. Volkov and T. F. Sivak. (Inst. Fiz.-Khim. Nauch.-Issledovatel. Inst. [illegible])

2, No. 1, 55-6(1953); *Referat. Zhur., Khim.*, 1954, No. 40978.—The liquidus surface of the system Li, K || F, CO_3 contained crystn. fields of the components, 2 fields of the double compds. $K_2F_2 \cdot 2K_2CO_3$ and $K_2CO_3 \cdot Li_2CO_3$, and 2 fields of triple compds. the compn. of which was not detd.

M. Hosch

6

(1) QW

VOLKOV, N. N., AND SHVAB, T. F.

Ternary Mutual System Consisting of Lithium and Sodium Fluorides and Carbonates
Izv. Fiz.-Khim. N.-I. In-Ta Pri Irkutskom Un-Te, Vol 2, No 1, 1953, pp 60-64

Investigated the above system using a visual-polythermal method. The system is reversible and analogous to the diagonal type. It has one eutectic and two transition points. The surface of the liquidus curve includes the crystallization area of the components and of the double compound Li_2CO_3. (RZhKhim. No 21, 1954)

SO: Sum. No. 639, 2 Sep 55

ZOSIMOVICH, M. P.; CHVAB, N. A.; GRISEVICH, A. N.; [illegible], N. Y.; KLAMNITSKAYA, K. B.
Kiev

"Die elektrochemische Gewinnung von Reinstmetallen: Zink, Kadmium und Mangan."

report submitted for 2nd Intl Symp on Hyperpure Materials in Science and Technology, Dresden, GDR, 28 Sep-2 Oct 65.

Institut obschey i neorganizheskoy khimii Akademii nauk UkSSR, Kiev

L 22890-66
ACC NR: AP6013994 SOURCE CODE: UR/0242/65/000/007/0037/0040

AUTHOR: Shvab, T. Yu. 10 B

ORG: Department of Eye Diseases/Headed by Docent T. Ya. Kasymov/, Tashkent Medical Institute (Kafedra glaznykh bolezney Tashkentskogo meditsinskogo instituta)

TITLE: Concerning the problem of eye burns and their therapy

SOURCE: Meditsinskiy zhurnal Uzbekistana, no. 7, 1965, 37-40

TOPIC TAGS: injury, therapeutics, drug therapy

ABSTRACT: Methods used in the therapy of eye burns at the clinic of the chair are described in the article. One hundred cases of eye burns were admitted to the clinic in the period between 1954 and 1964. Most of the burns, 76%, were caused by chemical substances, alkalies mostly; burns were noted in 24% of the patients. Fifty-three of the patients suffered from first degree, 36% second degree, and 11% third degree burns. Local and general therapy were applied, the latter consisting of the administration of antibiotics, biological stimulants, and vitamins, that is 40% glucose with vitamins, autohemotherapy, 40% urotropin, 10% calcium chloride, intramuscular administration of antibiotics, and tissue therapy — extract of aloes or placenta — in the regressive stage of the affection. Locally 30% albucid, 1% quinine hydrochloride, 0.01% citral, 1:300 or 1:5,000 furacillin, 5% glucose, blood serum and plasma, cortisone, dionin, tannin and other drugs were applied. Glucose with vitamins, and novocaine, blood,

Card 1/2

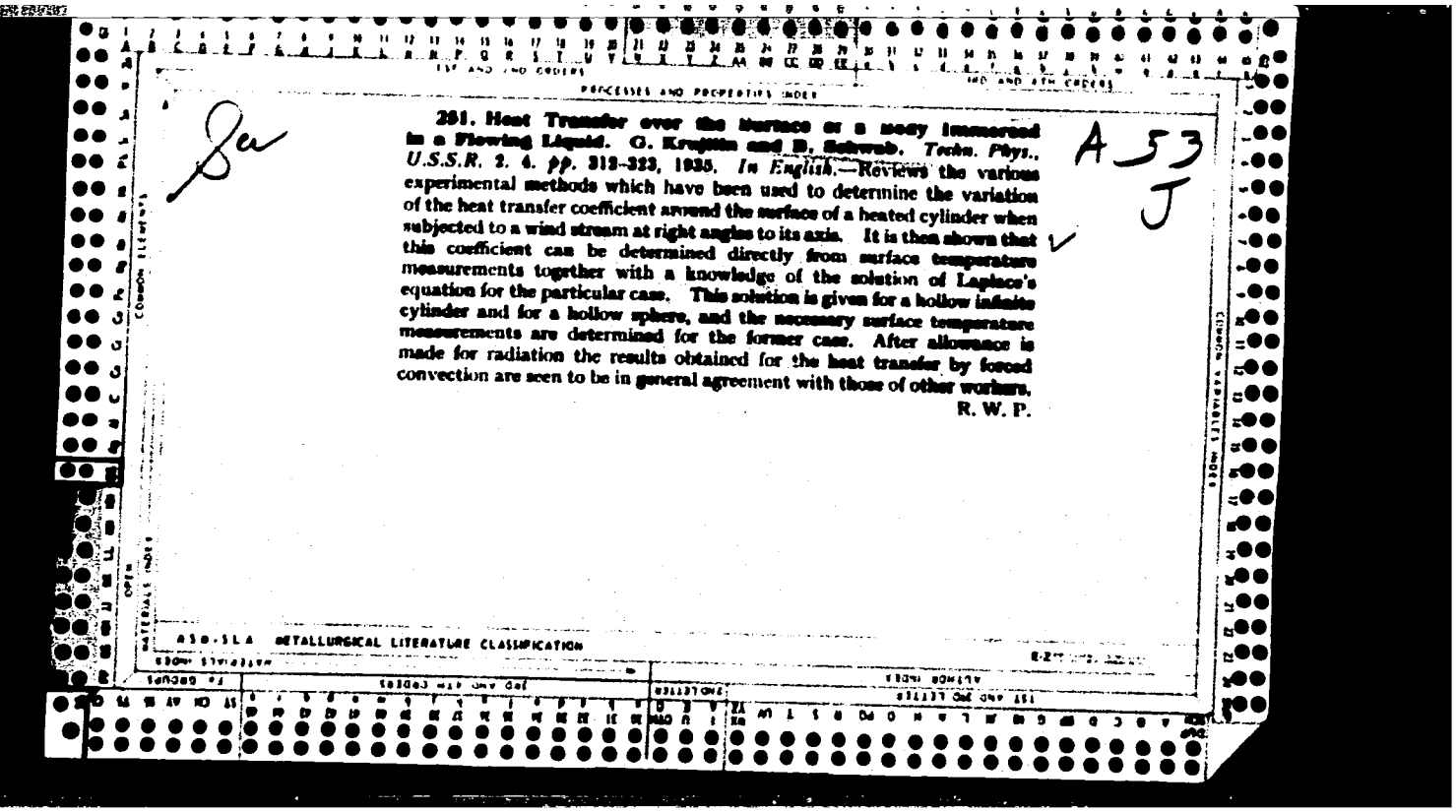
L 22890-65
ACC NR: AP6013994

antibiotics, and oxygen were administered subconjuctivally. In some of the cases foreign bodies had to be removed from the cornea and the conjunctival sac. As a result of this therapy 49 of the patients were discharged as completely cured. Fifty improved, and one, at his own insistence, with no results.

In discussing the results obtained the author concludes that 1) chemical substances, mostly alkalies, cause most of the industrial eye burns; 2) their clinical course and therapy are difficult; 3) prompt complex therapy of such burns by the methods described lead to complete recovery with good visual results. [JPRS]

SUB CODE: 06 / SUBM DATE: 08Oct64

Card 2/2 BLG



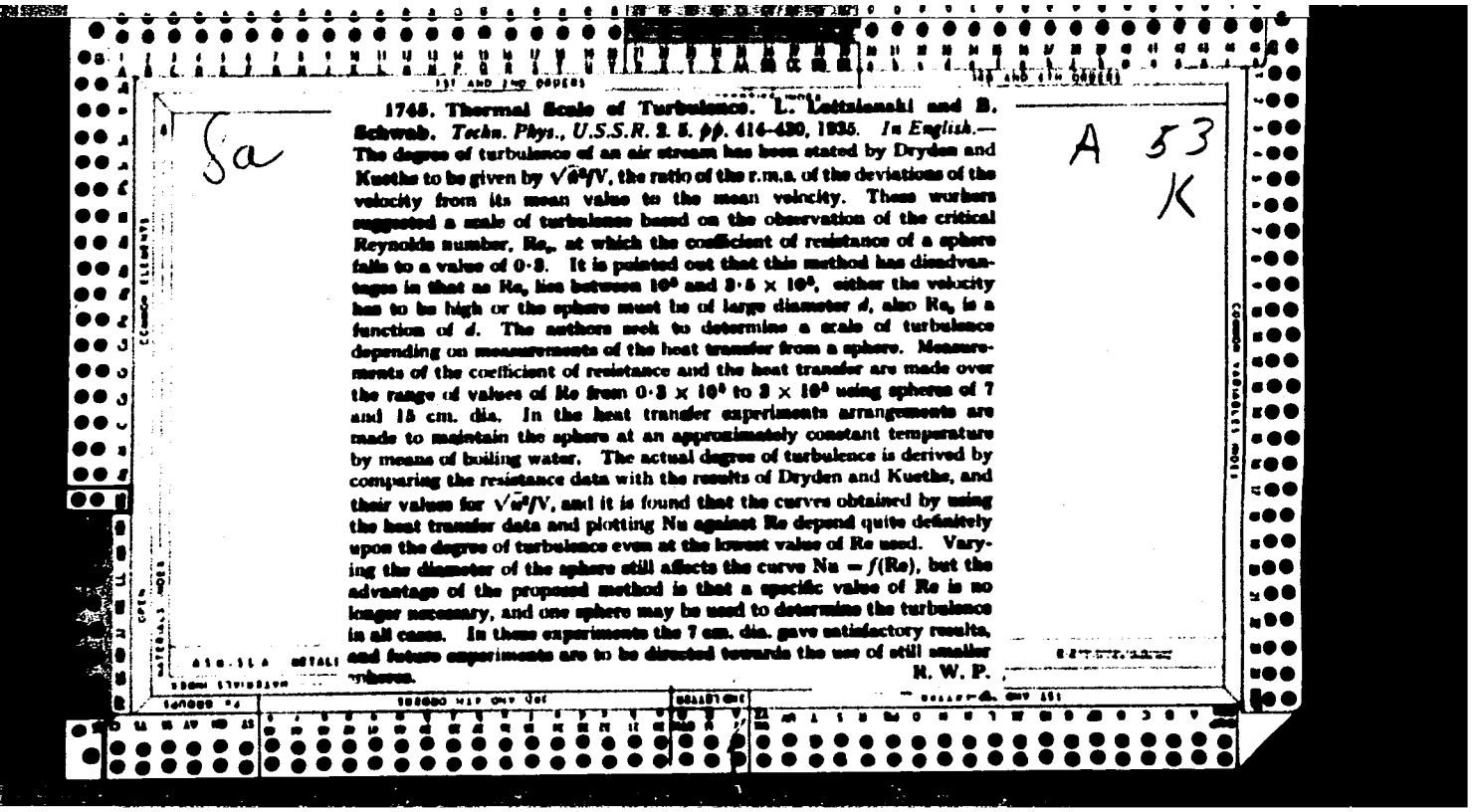
PROCESSES AND PROPERTIES INDEX

281. Heat Transfer over the Surface of a Body Immersed in a Flowing Liquid. G. Kruplin and B. Schwab. *Techn. Phys., U.S.S.R.* 2. 4. *pp.* 313–323, 1935. *In English.*—Reviews the various experimental methods which have been used to determine the variation of the heat transfer coefficient around the surface of a heated cylinder when subjected to a wind stream at right angles to its axis. It is then shown that this coefficient can be determined directly from surface temperature measurements together with a knowledge of the solution of Laplace's equation for the particular case. This solution is given for a hollow infinite cylinder and for a hollow sphere, and the necessary surface temperature measurements are determined for the former case. After allowance is made for radiation the results obtained for the heat transfer by forced convection are seen to be in general agreement with those of other workers.

R. W. P.

A53 J

A 53-5 L A METALLURGICAL LITERATURE CLASSIFICATION



5a

A 53
K

1745. **Thermal Scale of Turbulence.** L. Lattzlanski and B. Schwab. *Techn. Phys., U.S.S.R.* 2. 5. *pp.* 414-430, 1935. *In English.*—The degree of turbulence of an air stream has been stated by Dryden and Kuethe to be given by $\sqrt{\bar{u}^2}/V$, the ratio of the r.m.s. of the deviations of the velocity from its mean value to the mean velocity. These workers suggested a scale of turbulence based on the observation of the critical Reynolds number, Re_c, at which the coefficient of resistance of a sphere falls to a value of 0·3. It is pointed out that this method has disadvantages in that as Re_c lies between 10^5 and $3{\cdot}5 \times 10^5$, either the velocity has to be high or the sphere must be of large diameter d, also Re_c is a function of d. The authors seek to determine a scale of turbulence depending on measurements of the heat transfer from a sphere. Measurements of the coefficient of resistance and the heat transfer are made over the range of values of Re from $0{\cdot}3 \times 10^5$ to 3×10^5 using spheres of 7 and 15 cm. dia. In the heat transfer experiments arrangements are made to maintain the sphere at an approximately constant temperature by means of boiling water. The actual degree of turbulence is derived by comparing the resistance data with the results of Dryden and Kuethe, and their values for $\sqrt{\bar{u}^2}/V$, and it is found that the curves obtained by using the heat transfer data and plotting Nu against Re depend quite definitely upon the degree of turbulence even at the lowest value of Re used. Varying the diameter of the sphere still affects the curve $Nu = f(Re)$, but the advantage of the proposed method is that a specific value of Re is no longer necessary, and one sphere may be used to determine the turbulence in all cases. In these experiments the 7 cm. dia. gave unsatisfactory results, and future experiments are to be directed towards the use of still smaller spheres.

R. W. P.

SHVAB, V. A.

Teplootdacha v esloviiakh vneshnei zadachi pri nalichii turbulentnogo pogranichnogo sloia. (Zhurnal tekhnicheskoi fiziki, 1936, v. 6, no. 7, p. 1181-1194, bibliography)

Title tr.: The problem of external heat transfer in the presence of a turbulent boundary layer.

QC1.Z48 1936

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

SHVAB, V. A.

Sviaz' mezhdu temperaturnymi i skorostnymi poliami gazovogo fakela. (Zhurnal tekhnicheskoi fiziki, 1941, v. 11. no. 5, p. 431-443, diagrs.)

Title tr.: Relation between temperature and velocity fields of a gaseous torch.

QC1.Z48 1941

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

SHVAB, V.A., prof., doktor tekhn.nauk

Mechanism of solid particle suspension under the conditions of pneumatic tube transportation in a horizontal flow. Trudy TEIIZHT 23:162-173 '57. (MIRA 13:11)
(Dynamics of a particle) (Pneumatic-tube transportation)

USSR/Engineering Aug 1947
Hydraulics
Flow, Hydrodynamic

"Hydraulics of the Two-Phase Flow in the Upright Branch of Circulatory Circuit," V. A. Shvab, Candidate in Technical Sciences, TSKTI and Barnaulskiy Boiler Works, 5 pp

"Teploturbostroyeniye" No 4

Mathematical discussion with physical plans of the movement of a two-phase flow and the method of calculating the resistance and carrying capacity, arising in the uptake branch of the circulatory circuit in the movement of vapor-carrying mixture or other mixture of liquids of various components. The

24T29

USSR/Engineering (Contd) Aug 1947

method of calculation is based on experimental data available in literature on the carrying capacity of circulation contours.

24T29

SHVAB, V. A.

36573. Gidravlika Dvukhfaznogo Potoka V Gorizontal'nykh i Vertikal'nykh Trubakh. Trudy Tomskogo Elektro-Mekhan. In-Ta In-zhenerov Zh.-D. Transporta, T. XIV, 1948, c. 77-102. - Bibliogr: 8 Nazv

SO: Letopis' Zhurnal'nykh Statey, Vol. 50, Moskva, 1949

SOV/124-57-4-4459

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 4, p 85 (USSR)

AUTHOR: Shvab, V. A.

TITLE: Structural Peculiarities of the Flow and the Law of the Frictional Hydraulic Resistance in Horizontal Pipes as Related to the Motion of Gas-liquid Mixtures (the Case of the Two-dimensional Motion of a Viscous Liquid) [Strukturnyye osobennosti potoka i zakon gidravlicheskogo soprotivleniya treniya v gorizontal'nykh trubakh pri dvizhenii gazozhidkostnykh smesey (sluchay ploskogo dvizheniya vyazkoy zhidkosti)]

PERIODICAL: Sb. nauch. tr. Tomskiy elektromekhan. in-t inzh. zh.-d. transp., 1956, Vol 22, pp 205-228

ABSTRACT: The effect of a gravitational field on the plane laminar-flow structure of a gas-liquid mixture is examined on the basis of an approximate theory of such a flow. Conditions governing the displacement of the gas flow with respect to the axis were established. A transition boundary was found between a quiescent flow of the mixture and a new flow structure which, in the course of its further development, leads to the formation of froth plugs. A relationship was obtained permitting

Structural Peculiarities of the Flow and the Law of the Frictional Hydraulic (cont.)

the determination of the frictional resistance during the laminar flow of a mixture through horizontal pipes. The effect of the flow structure on the magnitude of the frictional resistance is investigated. It is shown that the displacement of the gas flow with respect to the axis of the channel has little effect on the frictional resistance. A comparison between calculated and experimental data is given. Bibliography: 8 references.

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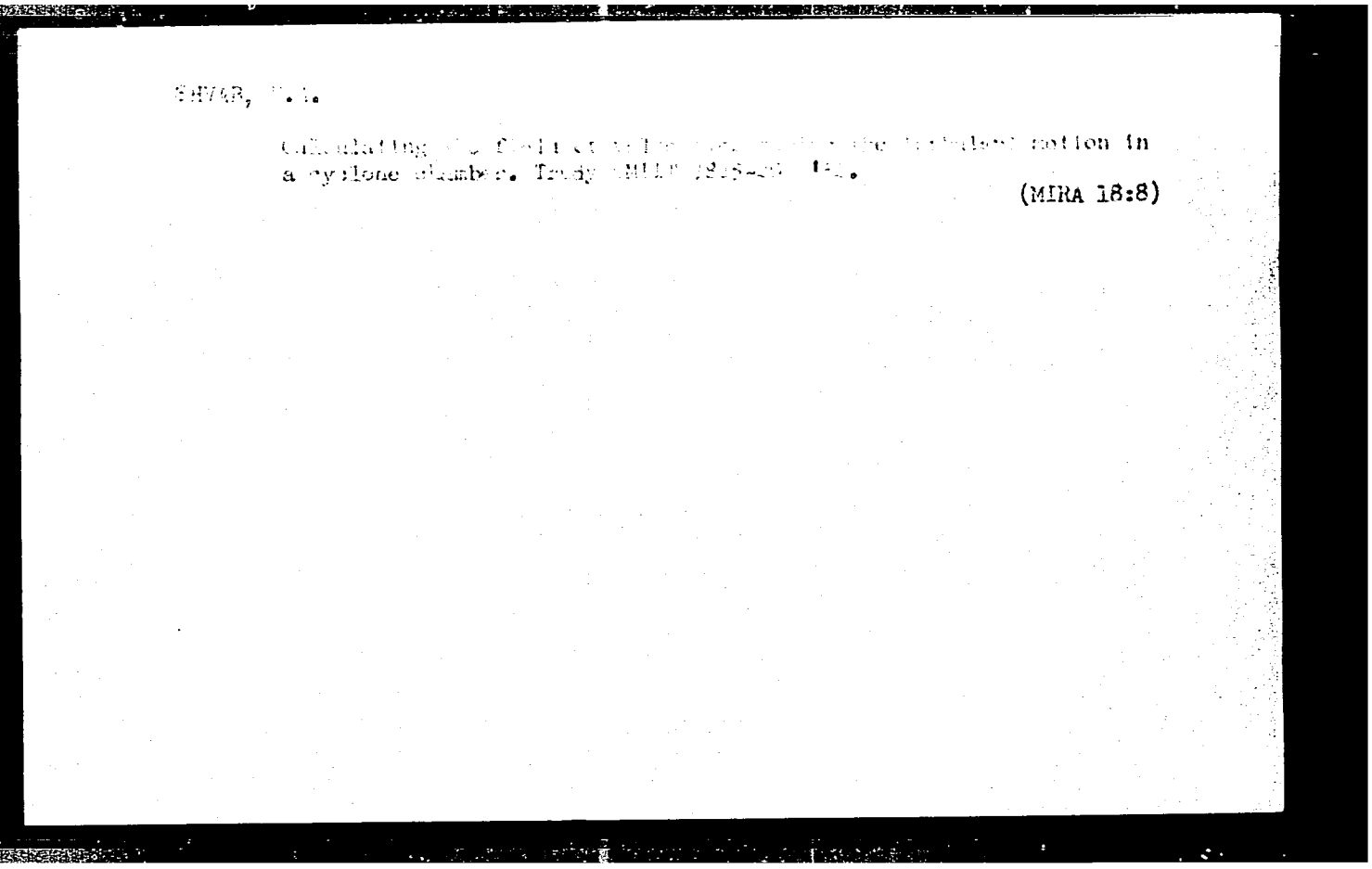

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J. S. Joffe

SHVABE, A. K.

The influence of milking on the exchange of substances and synthesis of milk. A. K. Shvabe (K. A. Timiryazev Agr. Acad., Moscow). *Doklady Vsesoyus. Akad. Sel'skokhoz. Nauk im. V. I. Lenina* 20, No. 6, 29–37(1955).— Increasing the interval between milkings increases the percentage of fat in the shorter interval. Thus, after 8 hrs. the fat content was 2.5; after the following 4-hr. interval it was 3.84%. When the intervals between milkings were the same, the fluctuation in percentage of fat was low, varying only as a result of other factors, such as day or night milking. In the case of protein and lactose there was not much of a variation with the different milking intervals. However, the lactalbumin content after short intervals between milkings decreased whereas globulin increased. Blood analyses before and after milking have shown that after milking the reserves of alkali in the blood decreased, the glutathione increased.

J. S. Joffe

USSR/Farm Animals - Larger Horned Cattle.

Abs Jour : Ref Zhur - Biol., No 18, 1958, 83385

Author : Shvabe, A.K., Belyayev, M.N.

Inst : Moscow Academy of Agriculture imeni K.A. Timiryazev.

Title : Elaboration and Effects of Instilling a Rational System of Keeping Cows on a Dairy Farm and Milking Them Twice Daily into Production Procedures.

Orig Pub : Dokl. Mosk. s.-kh. in. K.A. Timiryazeva, 1957, vyp. 27, 244-249.

Abstract : No abstract.

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